

# Innovate2011

IBM Rational 软件创新论坛



Software. Everywhere.



# 雄踞的 **CCM** 王者，沉稳的领头羊

## - 新 CC/CQ 如何提升企业级配置和变更管理

王晓悦

软件工程师, CCRC 软件开发人员

[wangxyue@cn.ibm.com](mailto:wangxyue@cn.ibm.com)



## ClearQuest & ClearCase 2010 -2011

### CQ/CC v7.1.2.0 – Q4 2010

- CQ/CC 灵活集成
- CM / OSLC 2.0 的支持
- DOORS – CQ 的集成
- PKI/CAC Smartcard 对于 CC and CQ 的支持
- Cadence 集成支持
- Visual Studio 2010 集成支持
- Windows 7 UAC, Ubuntu Platform 支持
- Jazz 集成优化

2011

### CQ/CC 2H 2011 – Q4 2011:

- CQ 报告系统的优化与提高
- CQ 基础功能优化
- ClearCase 新功能 : ClearTeam Explorer( 统一的客户端 ) 等**
- CQ – ALM 集成解决方案 (CQ,Jazz Integration)**
- CC 性能优化**

2010

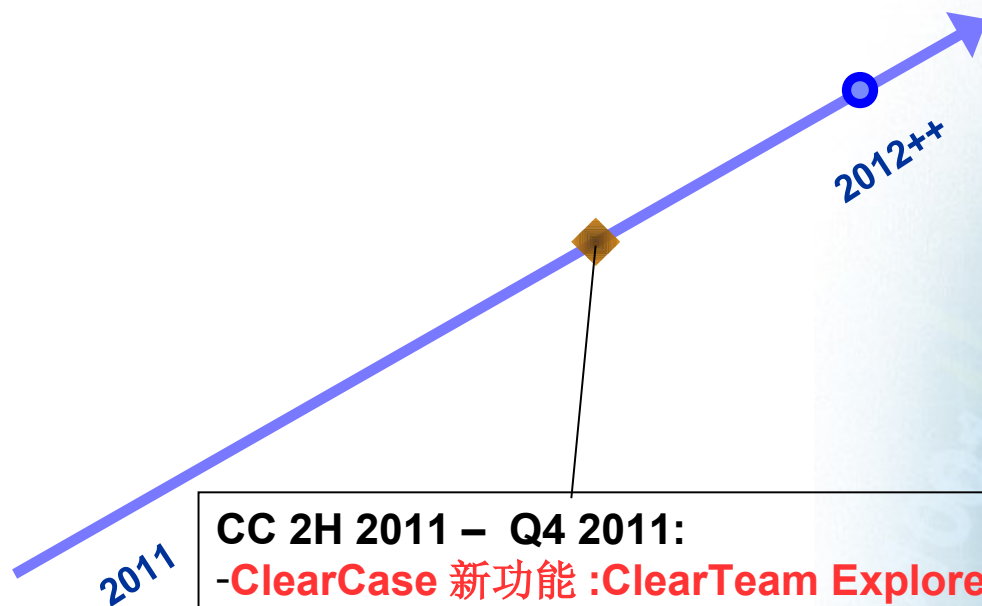
### CQ/CC v7.1.2.2/v7.1.x – 1H 2011:

- CQ Web Help 支持
- 64-bit Cadence 集成支持
- Synchronous Request for Mastership 的支持
- CQ ALM 1.x 升级系统
- CQ- DOORS 集成支持

2012++



## ClearCase 2011 -2012

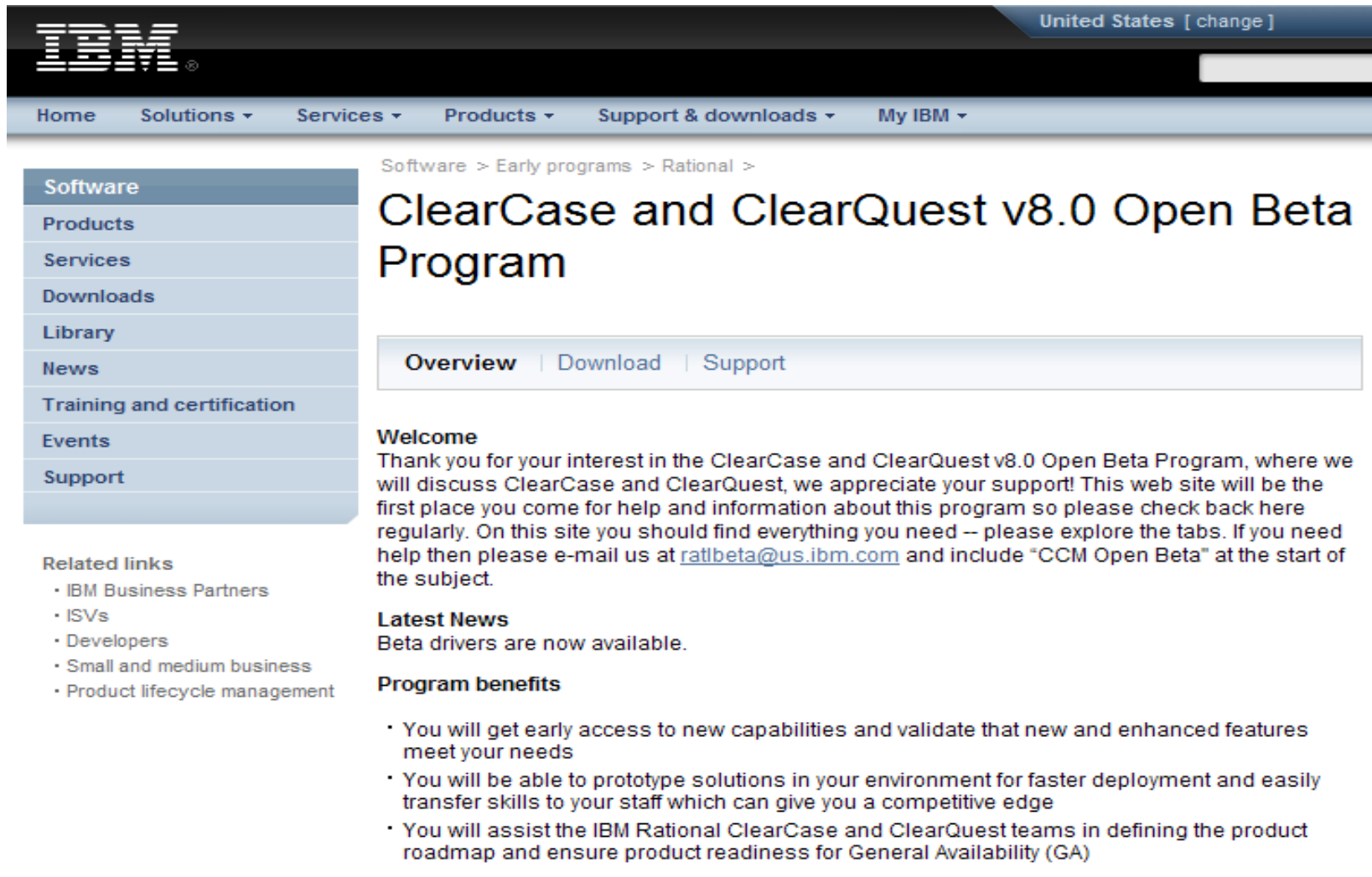


CC 2H 2011 – Q4 2011:

- ClearCase 新功能 :ClearTeam Explorer( 统一的客户端 ) 等
- CC – ALM 集成解决方案 (CQ,Jazz Integration)
- CC 性能优化



## ClearCase 2011 Beta3 已经可以下载试用了！



The screenshot shows the IBM Rational website interface. At the top right, it says "United States [ change ]". The main navigation bar includes "Home", "Solutions", "Services", "Products", "Support & downloads", and "My IBM". A left sidebar menu lists "Software", "Products", "Services", "Downloads", "Library", "News", "Training and certification", "Events", and "Support". The main content area has a breadcrumb trail: "Software > Early programs > Rational >". The title is "ClearCase and ClearQuest v8.0 Open Beta Program". Below the title are tabs for "Overview", "Download", and "Support". The "Overview" tab is active. The "Welcome" section thanks users for their interest and provides contact information: [ratbeta@us.ibm.com](mailto:ratbeta@us.ibm.com). The "Latest News" section states "Beta drivers are now available." The "Program benefits" section lists three bullet points: early access to new capabilities, the ability to prototype solutions, and assisting the IBM Rational teams in defining the product roadmap.

United States [ change ]

IBM

Home Solutions Services Products Support & downloads My IBM

Software > Early programs > Rational >

## ClearCase and ClearQuest v8.0 Open Beta Program

Overview | Download | Support

### Welcome

Thank you for your interest in the ClearCase and ClearQuest v8.0 Open Beta Program, where we will discuss ClearCase and ClearQuest, we appreciate your support! This web site will be the first place you come for help and information about this program so please check back here regularly. On this site you should find everything you need -- please explore the tabs. If you need help then please e-mail us at [ratbeta@us.ibm.com](mailto:ratbeta@us.ibm.com) and include "CCM Open Beta" at the start of the subject.

### Latest News

Beta drivers are now available.

### Program benefits

- You will get early access to new capabilities and validate that new and enhanced features meet your needs
- You will be able to prototype solutions in your environment for faster deployment and easily transfer skills to your staff which can give you a competitive edge
- You will assist the IBM Rational ClearCase and ClearQuest teams in defining the product roadmap and ensure product readiness for General Availability (GA)

<https://www14.software.ibm.com/iwm/web/cc/earlyprograms/rational/rccq8ob/>



新功能介绍

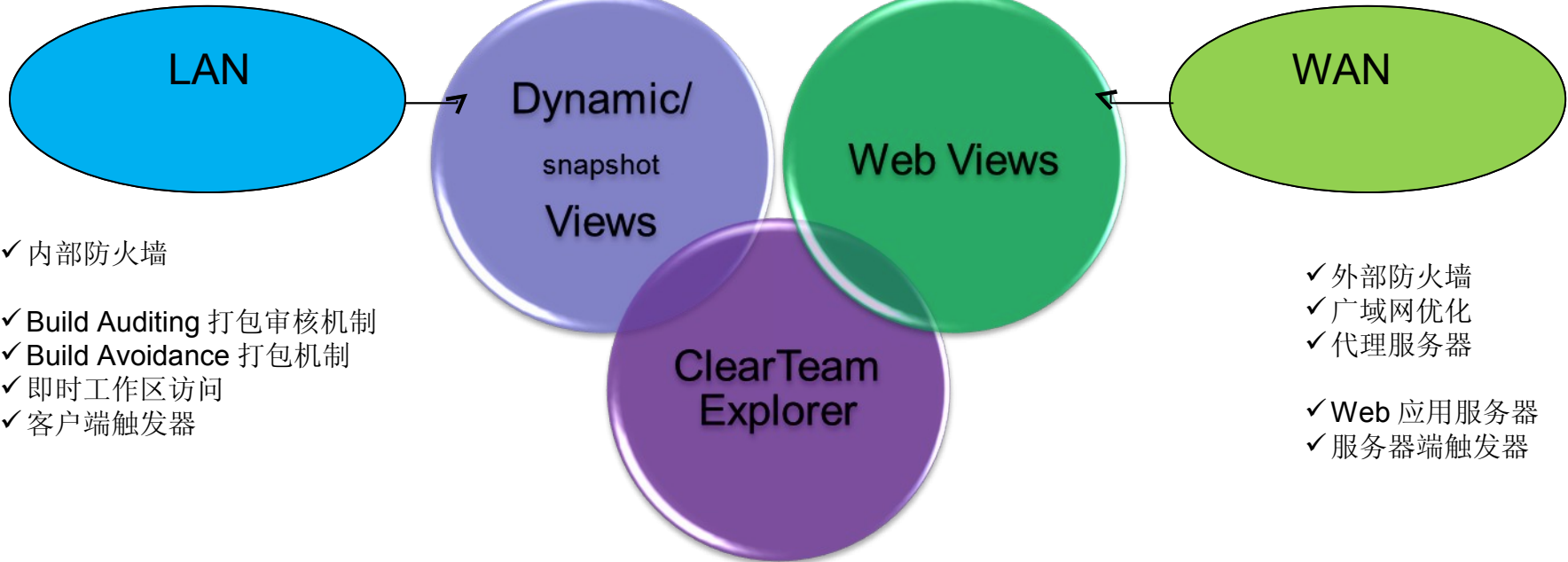
## CLEARCASE





# ClearTeam Explorer

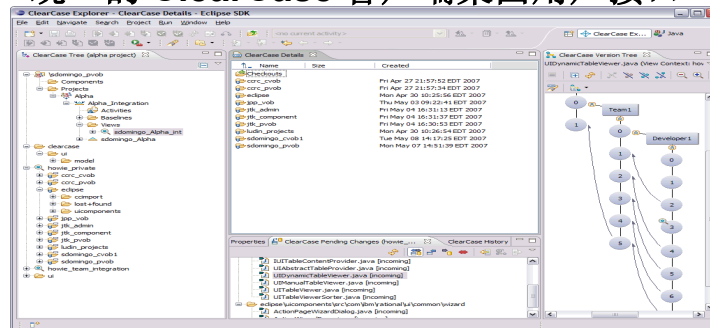
统一的 ClearCase 客户端桌面用户接口



- ✓ 内部防火墙
- ✓ Build Auditing 打包审核机制
- ✓ Build Avoidance 打包机制
- ✓ 即时工作区访问
- ✓ 客户端触发器

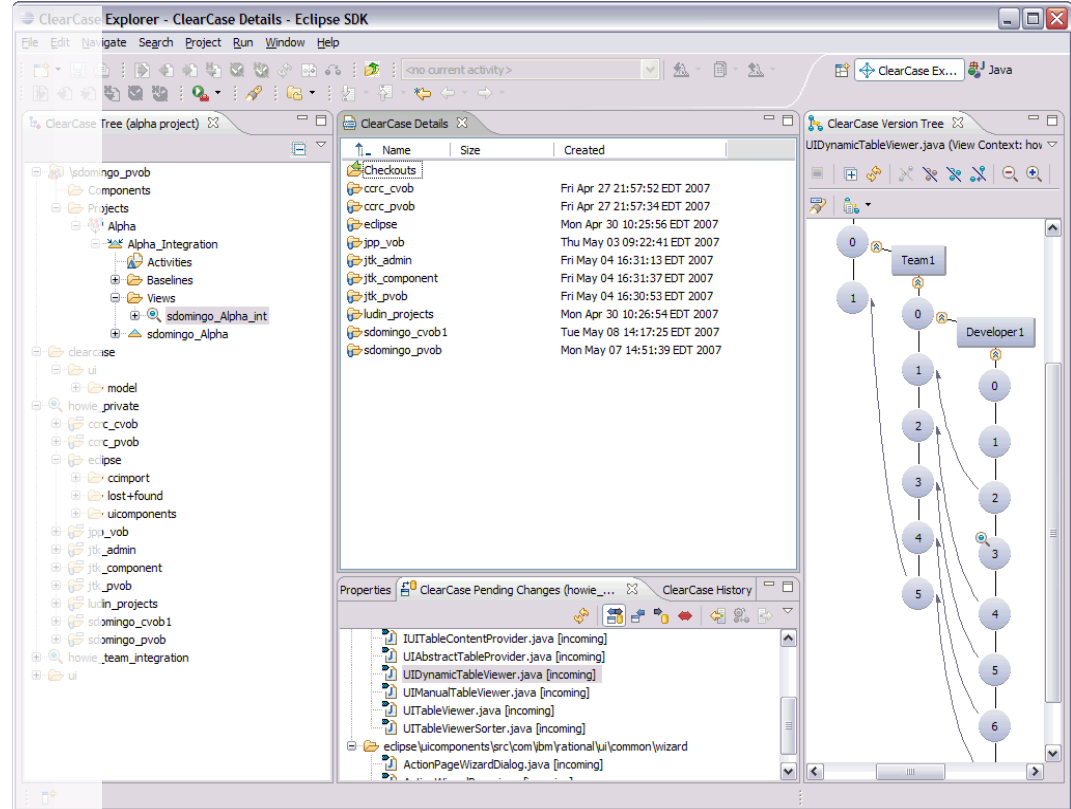
- ✓ 外部防火墙
- ✓ 广域网优化
- ✓ 代理服务器
- ✓ Web 应用服务器
- ✓ 服务器端触发器

统一的 ClearCase 客户端桌面用户接口



# ClearTeam Explorer

- 提高个人开发效率：
  - ▶ 支持动态视图和静态视图
  - ▶ 偏爱的项目和工作区过滤器
  - ▶ 一键式 Deliver 和 Rebase 功能
  - ▶ 递归的 Check in 模式
  - ▶ Multisite 多站点支持
  - ▶ Project Lead 对于 base and UCM 的支持
- 提高开发团队效率：
  - ▶ 与 CQ Forms & Queries 的集成
  - ▶ Pending changes view 的使用发现冲突
  - ▶ Eclipse shell-share 脚本共享支持
  - ▶ 与 Jazz 基本协作开发的集成支持



A Unified Desktop Client User Interface





## ClearTeam Explorer 新功能展示

- 对事务级别原子操作 **Atomic Commit** 的支持
- 对 **Jazz** 集成实现协作开发
- **Pending Changes View** 的改进
- **Deliver/Rebase** 功能的改进
  - ▶ 流基线对于敏捷开发“默认”操作的支持
  - ▶ 自动化的 创建 / 推荐 基线 following deliver
- **Scheduled operations**
  - ▶ 视图更新通知
  - ▶ 新基线通知
  - ▶ 即时 pending changes view 响应通知
- **通用化对话框**
  - ▶ 更加的简便, 细节化
  - ▶ 用户可定制
  - ▶ 偏爱设定
  - ▶ 对于相同试图的递归支持
  - ▶ 工作空间过滤器
- **统一的变更处理机制**
- **新的偏爱设定机制**
  - ▶ 相同的 Checkin 处理机制
- 对已有功能的在 **CTE** 中的支持及改进
  - ▶ Join Project, Create View, Create Stream
  - ▶ Apply Label
- 对 **Tasktop/Mylyn** 集成的支持
- 对于不一致的自动侦测功能
- 新的配置编辑窗口 (load rules)
- **上下文类型操作**
  - ▶ 支持基于流上下文关系方式创建流
  - ▶ 支持基于流上下文关系方式创建视图
  - ▶ 支持基于流上下文关系方式加入工程项目
- **对于变更级的特定功能的支持**
  - ▶ 对不同变更集和活动间版本的托拽及消除的支持
- **与 ClearQuest 的集成**
  - ▶ 新的与 ClearQuest 的集成方式 (SQUID)
  - ▶ 支持 ClearQuest 特定操作 (创建 CQ 记录, 通过 ID 查找相应记录信息, 查找最近操作相关)
- **UCM**
  - ▶ 新的工具条: Deliver/Rebase, Activity 管理, Join Project 操作
  - ▶ Activity 的缓存机制 (用户优化性能)
  - ▶ 实现 Join Project 过程中可选择性加载开发或集成试图
- **浏览界面的增强**
  - ▶ 地址栏 (Address Bar)
  - ▶ 工作组 (Working Sets)
  - ▶ 离线模式 (Disconnected mode support)
- **数据版本比较与合并 Differencing and Merging**
  - ▶ 对于第三方 diff/merge 工具的支持
  - ▶ 版本树可选择版本合并数据方式的支持
- **MultiSite**
  - ▶ 自动化的同步请求的支持
  - ▶ mkelem -master 的支持



## ClearCase – 对 Cadence 的集成及提供的支持

### ▪ ClearCase 功能对 Cadence 的集成

- 对 Cadence 用户工作区管理及有丰富的整合菜单, 工具栏和自定义用户接口支持
- 对 Cadence 工作区的即时支持 - 有能力通过 ClearCase 动态视图即时访问任何大型数据信息而不需要进行预处理或预加载
- 对 Cadence 支持全球多站点分布式开发
- 有能力实现用户特定环境下的版本控制操作
- 支持 co-managed sets 以及原子 Checkin 操作

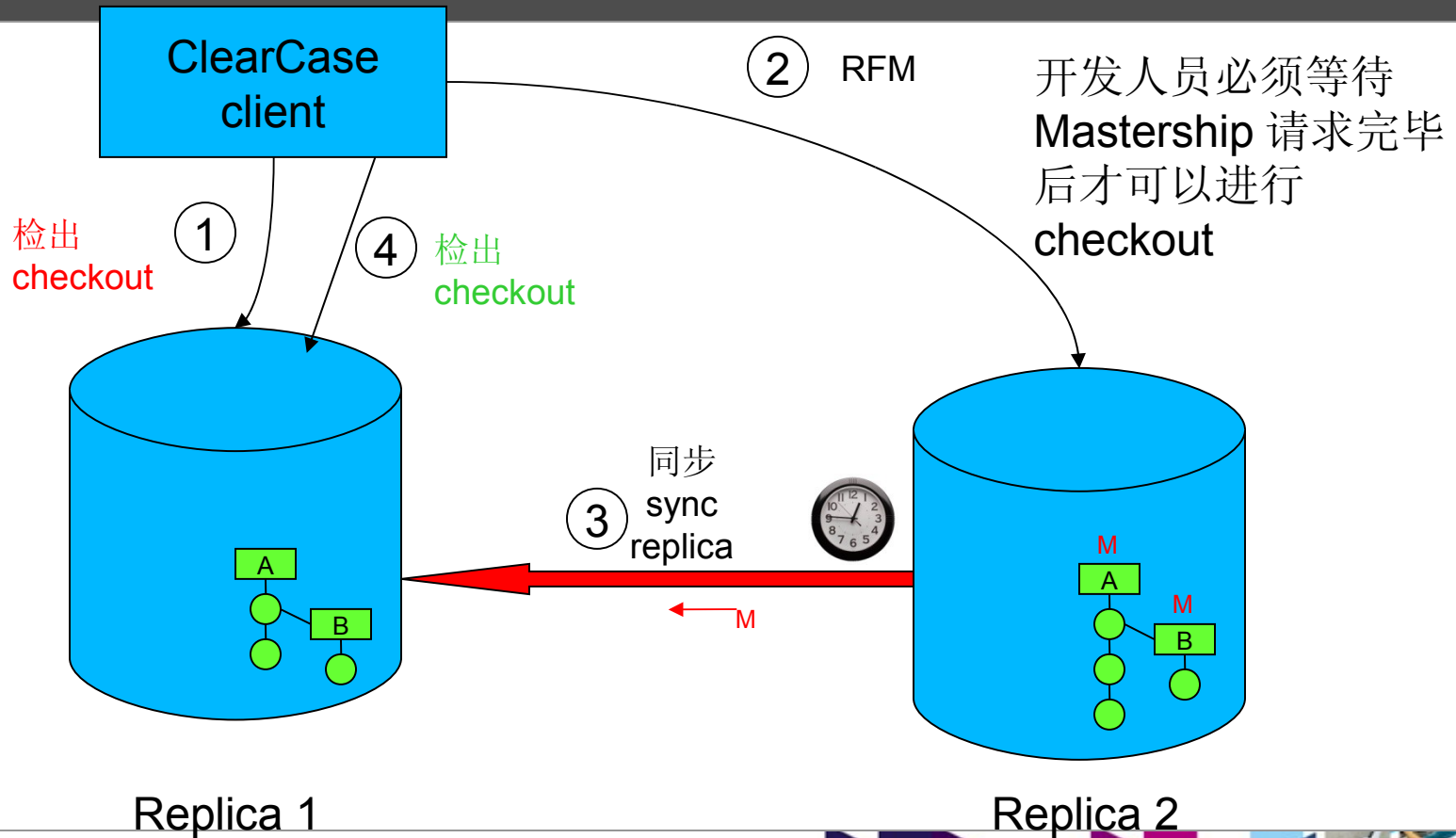
### ▪ ClearCase 功能对 Cadence 的特定数据及功能的支持

- 有能力管理 Cadence DFII 中的 design input 数据对象, 包括 SKILL, Circuit Design language (CDL), PSF, PSF XL 等
- 有能力在 ClearCase 中管理 design outputs 例如 Library, 视图单元, 文件夹单元以及文件资源, 包括 XML database, PSF, PSF XL, scripts, 和其他相关资源
- 支持 32-bit & 64-bit Cadence 工具集



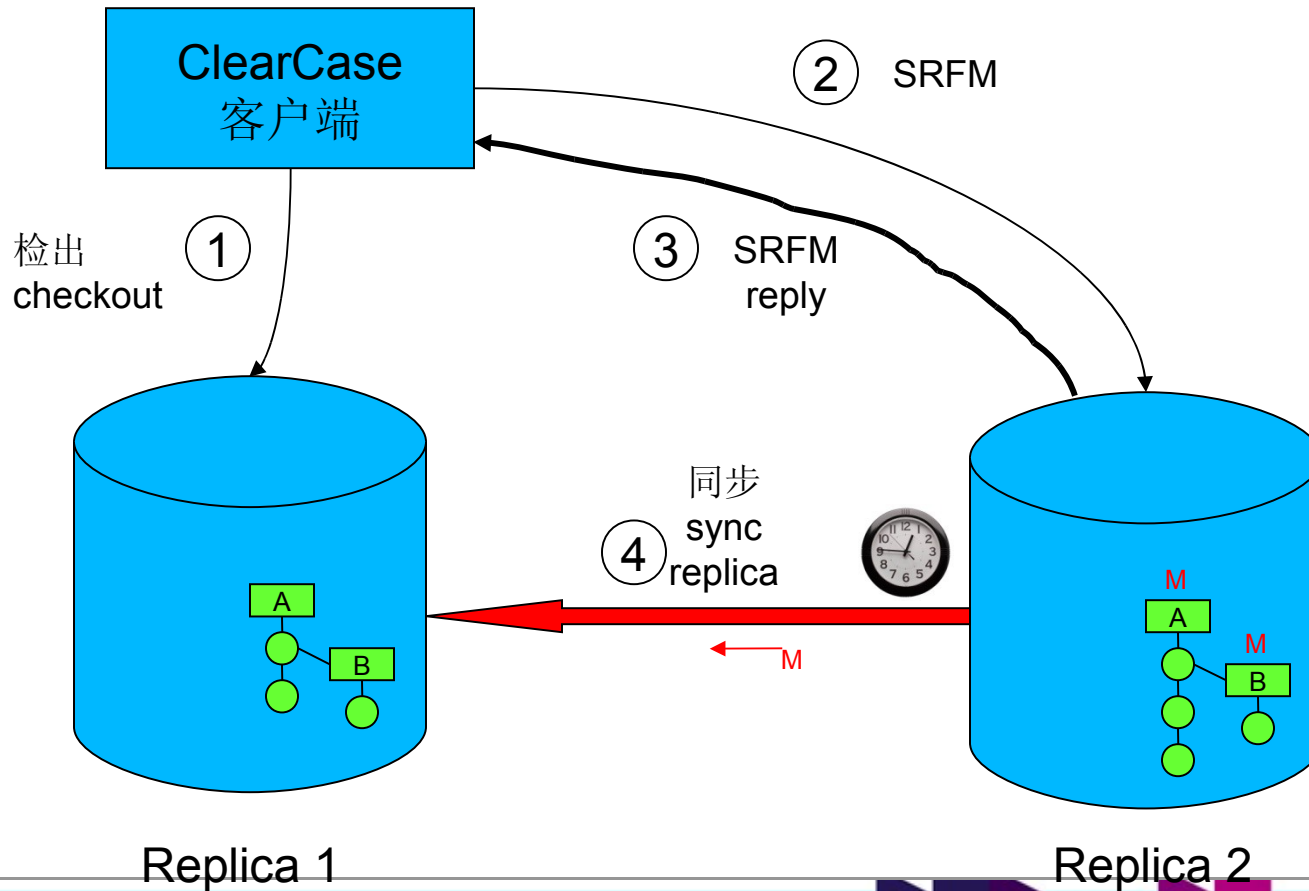
## ClearCase MultiSite – 传统同步请求方式 (Request for Mastership)

### Synchronous Request for Mastership



## ClearCase MultiSite – 同步请求方式 (Synchronous Request for Mastership)

### Synchronous Request for Mastership





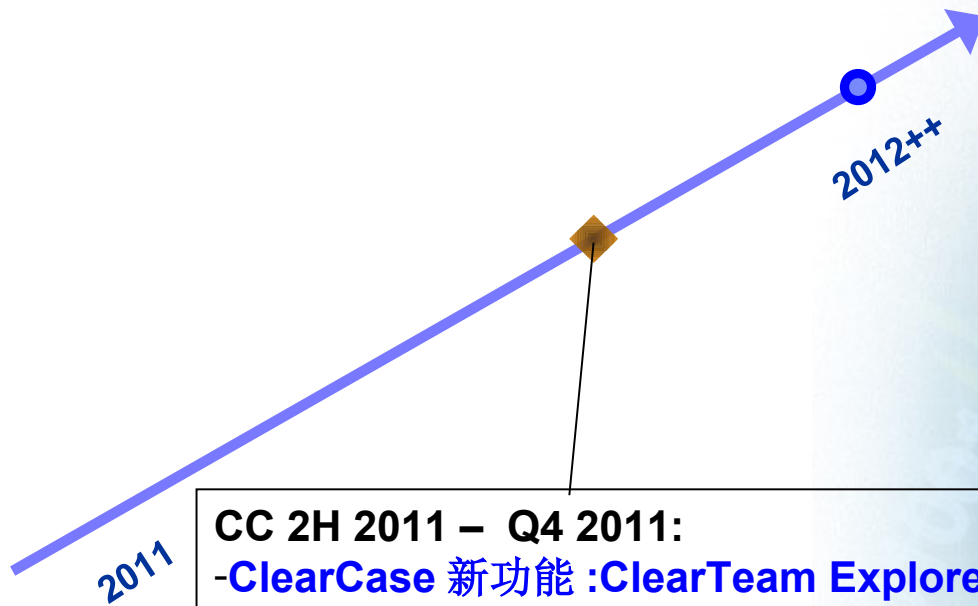
## ...ClearCase 能够提供的其他功能

	价值 / 影响
<p>对于 Windows 7 用户访问权限的支持 Windows 7 BitLocker 的支持</p> <p>ClearCase 传统客户端及 CQ Web 客户端对于 PKI/CAC – SmartCard access 的支持</p>	<p>提供了有效的安全需求解决方案</p> <p>实现了 US Government/DoD 针对 SmartCard 访问权限验证的安全需求</p>
<p>CC/CQ – Ubuntu 10.04 LT 客户端的支持</p>	<p>对于使用 Ubuntu 10.04LT 作为平台开发并部署 Android 应用程序的开发人员提供客户端的支持</p>
<p>CC/CQ – Token License 方式的支持</p>	<p>提供更加灵活的 token license 许可证使用方式来部署 Rational 解决方案，从而实现按需求购买 license，并通过 used /moved 方式在不同的 Rational 产品之间进行使用</p>





## ClearCase 2011 -2012



CC 2H 2011 – Q4 2011:

- ClearCase 新功能 :ClearTeam Explorer( 统一的客户端 ) 等
- CC – ALM 集成解决方案 (CQ, Jazz Integration)
- CC 性能优化

## ClearCase 与 ClearQuest

集成配置的变更管理方式，实现与 CQ 灵活的松耦合集成

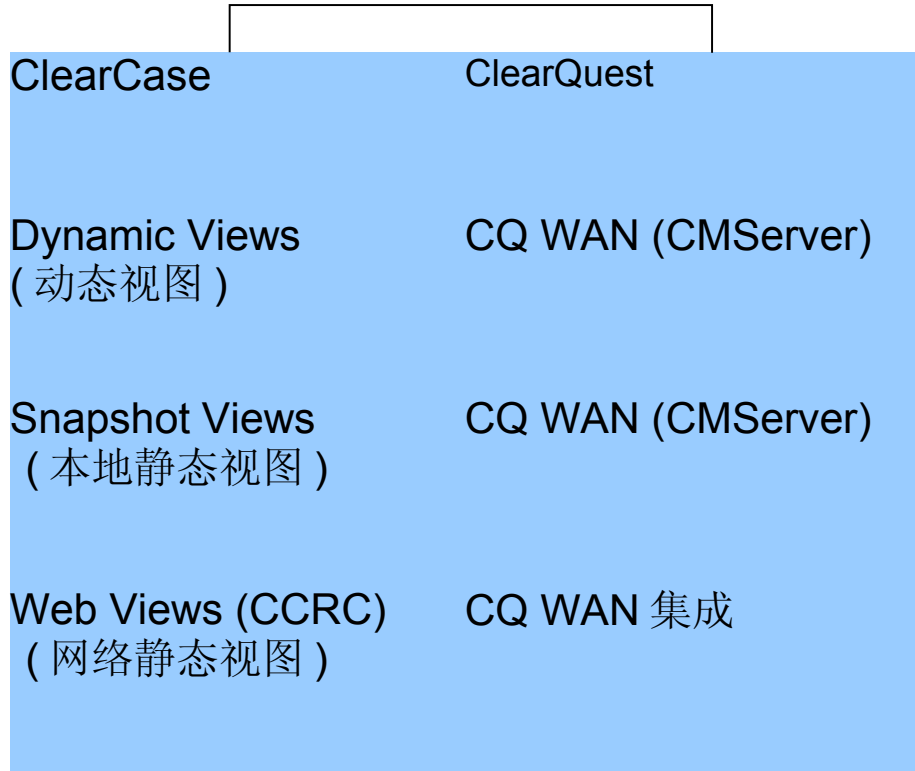
ClearQuest 与 Base ClearCase 的集成

ClearQuest 与 UCM ClearCase 的集成

ClearCase-ClearQuest 灵活的松耦合集成开发环境



### 1 ClearQuest 服务器 - 多个 ClearCase 客户端



# ClearCase 与 ClearQuest

## 更加容易的集成开发方式

- 局域网 ClearCase 与广域网 ClearQuest 通讯
  - ▶ ClearCase 客户端的动态或静态视图均可以实现与广域网 CQ 交互
    - 例如以下功能组件 . cleartool, Project Explorer, ClearCase Explorer, 等 .
  - ▶ 对于通过 CCRC 或 CQWeb 使用 UCM 的情况不会有任何影响
- 使用 OSLC 2.0 CQ REST API 实现和 CQ 的交互
  - ▶ Comes installed with 7.1.2 CQ Web
  - ▶ 基于 HTTP(s) 的友好的广域网
- 带来的影响
  - ▶ 减少安装部署 CQ 传统客户端的需求
  - ▶ 减少对于 CQ Multisite 的依赖
  - ▶ 当前还不支持的平台包括以下
    - Solaris X86, Linux 390, Linux PPC, HP IA64



# ClearCase 与 Jazz

## 在 Jazz 中实现与 ClearCase 动态视图的集成

- 利用 Jazz 的功能来强化 ClearCase
  - 通过设定 Jazz build 来定义和实现源代码打包及版本生成
    - <http://www.youtube.com/watch?v=TPnAUzdBZxc>
  - 在失败的版本中直接创建 work items
  - 使用敏捷开发计划 agile planning 来跟踪开发任务
  - 使用 queries, dashboards, reports 等功能 .
  - 开发小组协同工作 Collaborate



# ClearCase 与 Jazz

## Jazz General Build 与 ClearCase 的结合

- <http://www.youtube.com/watch?v=TPnAUzdBZxc>
- 在 RTC 中通过使用 Jazz Build 引擎命令实现对 build 的定义
- 通过编写脚本实现从 ClearCase 动态试图中获取需要被 build 的源代码文件
  - 未来可能会考虑直接 Jazz Build 功能与 ClearCase 的直接集成？
- 可以使用的 build 引擎 (Jazz, BuildForge, 等.)
- 定时对指定机器发送请求来执行相应的 build 引擎程序
- 监测打包及版本生成过程
- 创建 Jazz Ant 任务实现 build 信息到 Jazz 服务器的推送
- 从失败的版本中创建 RTC 工作项
- (展示区有产品功能演示)



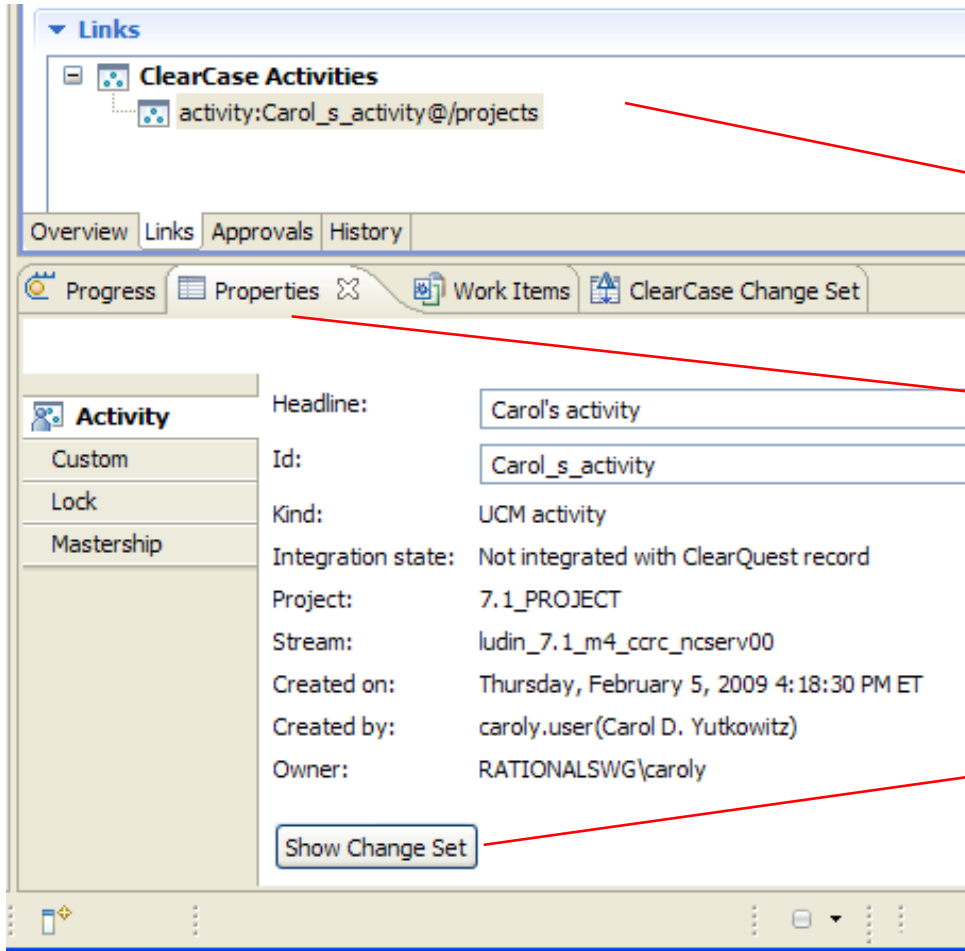




[www.ibm.com/software/rational](http://www.ibm.com/software/rational)



# ClearCase 与 CQ 及 RTC 的用户接口



- 被关联的 ClearCase 活动会被显示在 RTC 中对应工作项目的标签中
- 在 RTC 工作项目编辑窗口中打开相应的 ClearCase 活动关联，便可以显示 ClearCase 对应的变更管理及其属性
- 当关联一旦被确定，该关联就可以被用于 queries, dashboards 中。
- 活动的属性中可以显示该活动的所有信息，同时还可以察看该活动相应的变更集

## 利用 CC & CQ UCM 方式在 Jazz RTC 中关联项目计划 计划项目，工作任务及 ClearCase 版本间的关联

**ClearCase Connector**

Team Area: ClearCase Connector | Iteration: 2.0 MID1 (10/27/08 - 11/21/08) | 53 Closed | 39 Open

**Brian Nelson**

- Broken externalized strings in connector.scm.ide.\*
- Do a license check before deleting sync streams
- Exception when trying to change two different initArgs at same time (one CC, one Jazz)
- change sync user is a two steps work instead of one
- Refactor 3 tableviewers/label providers/content providers in GUI into a set of one each of those classes
- Need to clean up after changes for 62361 and 62363
- Gray out "Finish" button on "Select Team Area" page
- Confirmation for synchronized stream deletion gives wrong number of streams to delete
- Error message about project folders not existing refers to ClearCase even when selecting files from Jazz
- ClearCase Provider Properties shows unqualified stream name

**Carol Yutkowitz**

- Track Test Status of 2.0 MID1
- Provide project level read permissions
- Avoid mounting the PVCB
- API in "Change ClearCase provider" from properties dialog when entered "new" as the

敏捷开发计划  
与工作任务之  
前的关联

**Defect 35465**

Summary: ClearCase Provider Properties shows unqualified stream name

Attachments:

Id	Name	Created	Created by	Size	Type

Subscribers:

- Brian Nelson
- Carol Yutkowitz
- Geoffrey Clemm

Links:

- Change Sets
  - ClearCase Connector - Brian Nelson Nov 12, 2008 3:15 PM
- ClearCase Activities
  - activity: Bug\_Fix@carol\_p\_vob
- Included in builds
  - continuous.connector.cc.jazz C20081112-2157
  - health.connector.cc.jazz H20081113-0000
  - nightly.connector.cc.jazz N20081113-0300
  - nightly.integration.jazz I20081114-0000
  - weekly.integration.jazz I20081118-0800

工作项与  
ClearCase 活  
动间的关联

**Properties**

**Fix name problem [Bug\_Fix]**

**Activity**

Headline: Fix name problem

Id: Bug\_Fix

Kind: UCM activity

Integration state: Not integrated with ClearQuest record

Project: Project1

Stream: Int1

Created on: Thursday, May 28, 2009 8:27:39 PM ET

Created by: caroly.user(null)

Owner: RATIONALSWG\caroly

Show Change Set

ClearCase 活动  
与代码变更级  
之前的关联

**ClearCase Details** | **ClearCase Change Set**

Activity: Fix name problem [Bug\_Fix], View: caroly\_Project1\_int

Name	Version	Created On
carol_ucm_vob/C1	/main/Int1/3	May 31, 2009 3:02:28 PM...
carol_ucm_vob/C1/New...	/main/Int1/2	May 30, 2009 10:45:19 P...
carol_ucm_vob/C1/New...	/main/Int1/2	May 30, 2009 10:29:58 P...
carol_ucm_vob/C1/New...	/main/Int1/1	May 30, 2009 10:26:40 P...
carol_ucm_vob/C1/New...	/main/Int1/2	May 30, 2009 10:29:54 P...
carol_ucm_vob/C1/New...	/main/Int1/1	May 30, 2009 10:27:57 P...
carol_ucm_vob/C1/New...	/main/Int1/1	May 30, 2009 10:29:49 P...

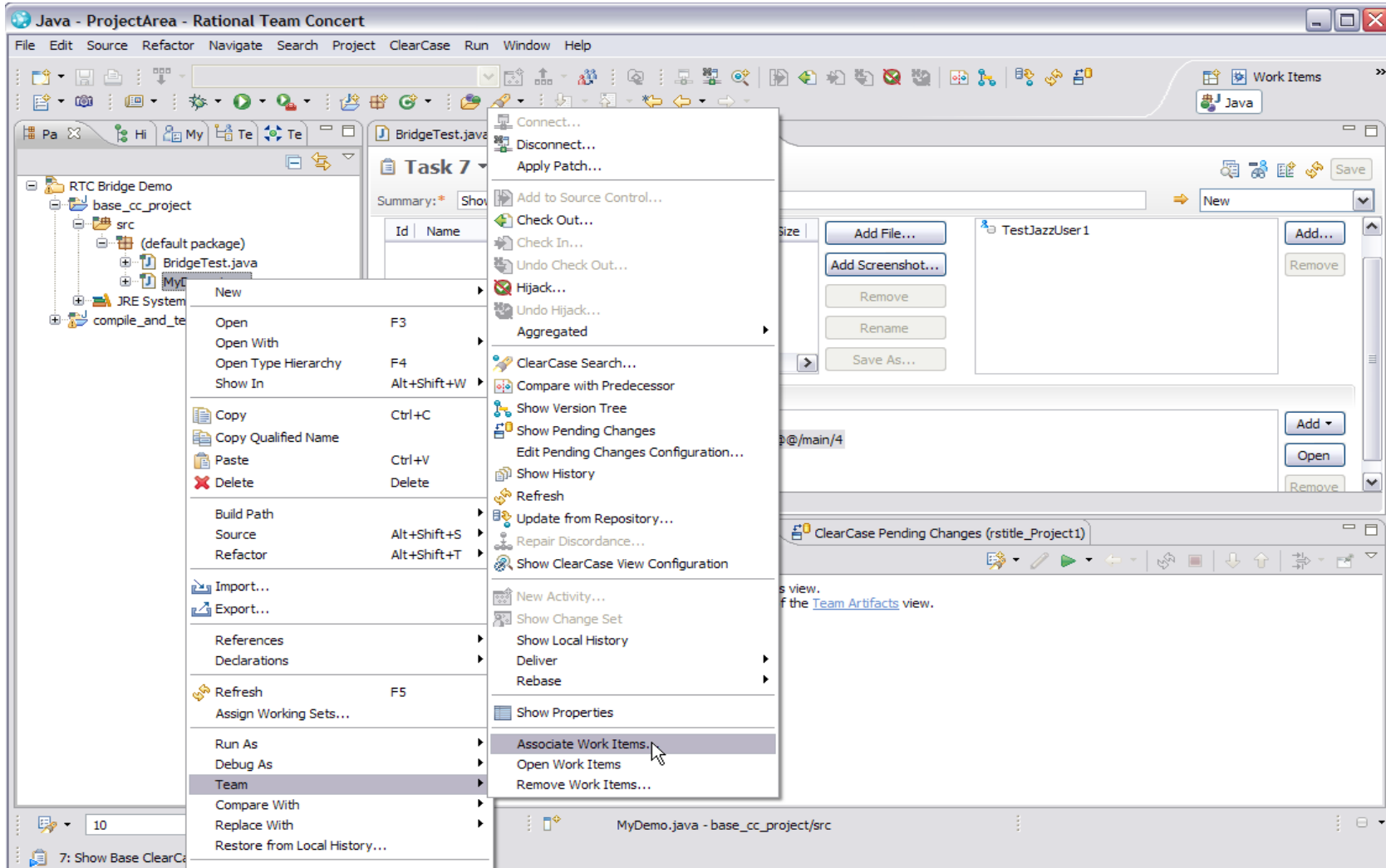
## Jazz RTC 开发计划，项目与 Base ClearCase 的关联

计划项目，工作任务及 ClearCase 版本间的关联

The screenshot illustrates the configuration and workflow for linking Jazz RTC with Base ClearCase. It features several overlapping windows:

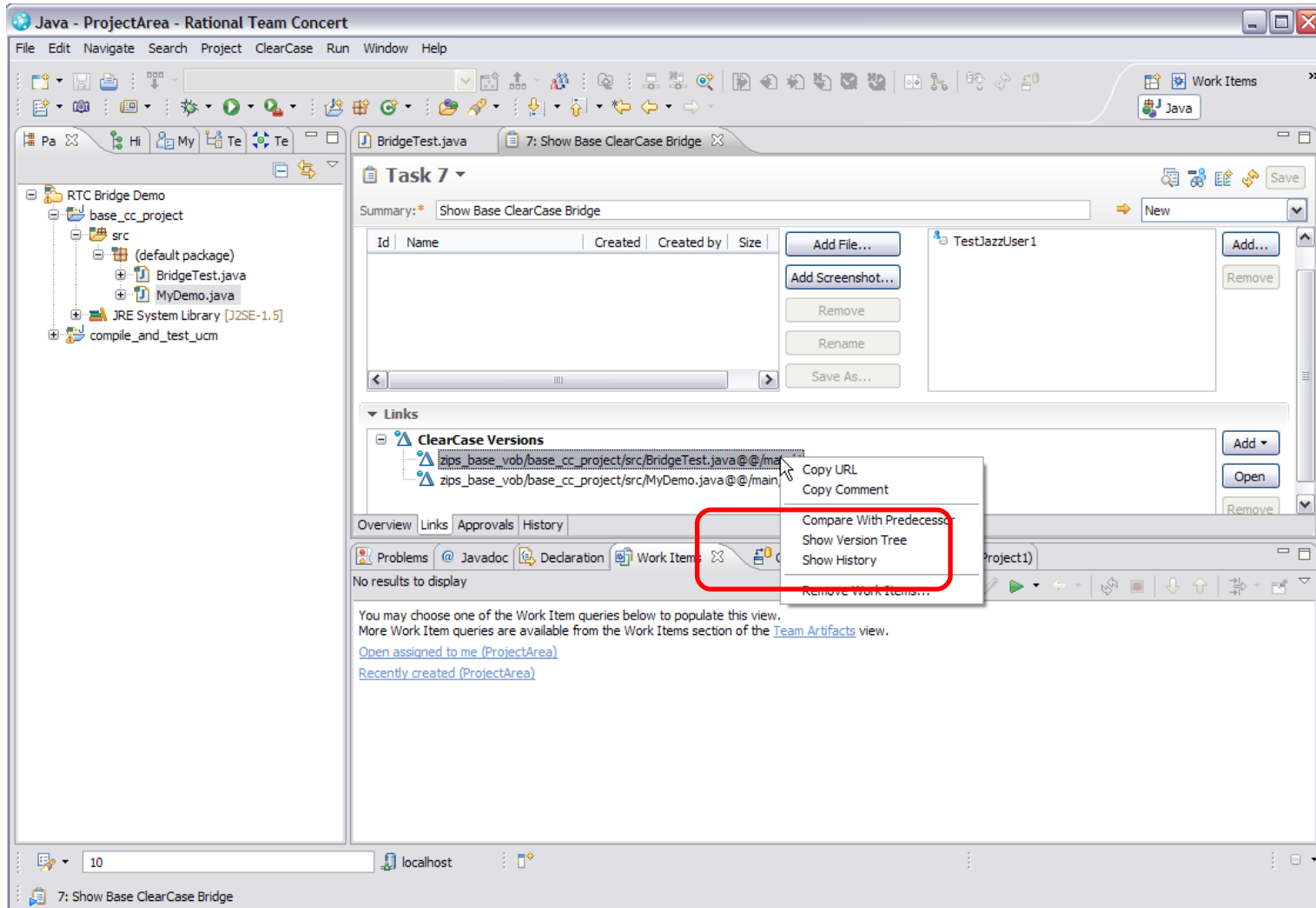
- Preferences - ClearCase/Jazz Bridge:** The checkbox "Enable Base ClearCase bridge for work item associations" is checked and circled in red.
- ClearCase Details:** A context menu is open over a file named "MyMainClass.java", with the "Check Out..." option circled in red.
- Defect 16:** A defect view for "16: Fix blocking defect" is shown. The "Links" section contains a "ClearCase Versions" link, which is circled in red. The link details are: "rstyle\_baseecc\_test/JavaProject/src/MyMainClass.java@@/main/CHECKEDOUT".

## 在 clearCase 动态视图中关联 Jazz RTC 工作项目 使用 SCM Adapter 适配器模式

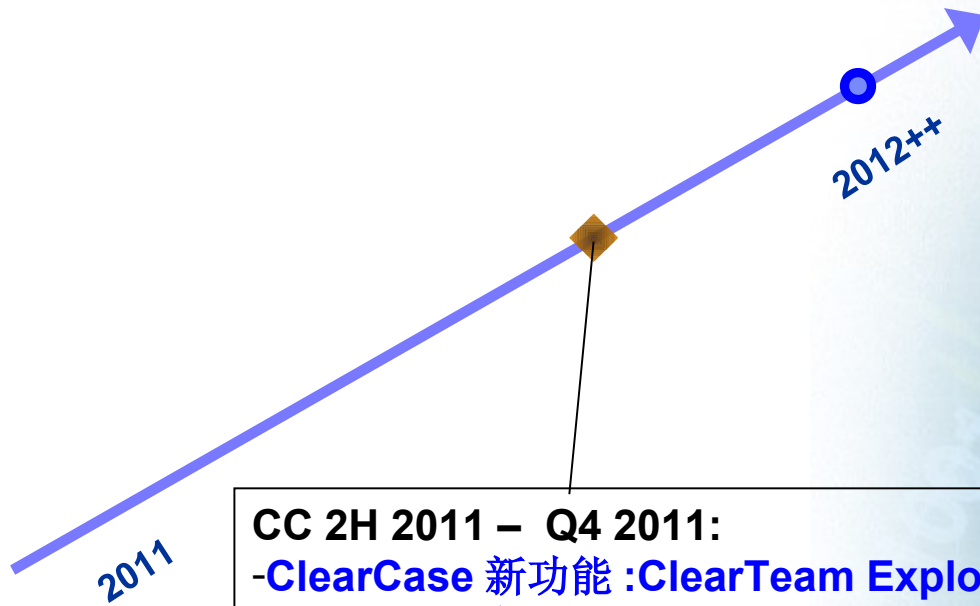




## ClearCase 变更版本与工作向关联



## ClearCase 2011 -2012



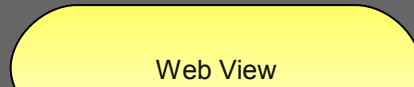
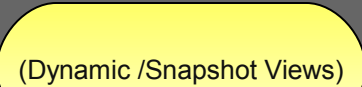
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# ClearCase and ClearQuest 构架图

目标：灵活的松耦合开发集成，性能提升

## ClearCase 客户端

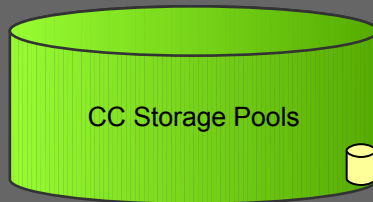


rpc

http(s)

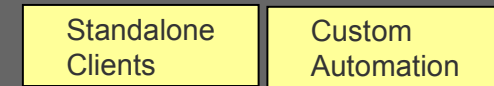


ClearCase Core Servers ( Vob, View, License, Registry, CredMap etc..)



↑ provides HA support  
 ↓ provides DR support

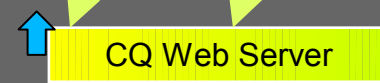
## ClearQuest 客户端



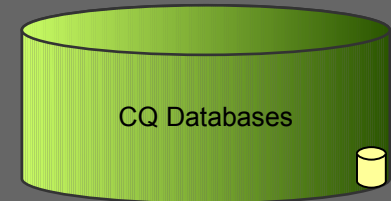
http(s)

http(s)

DBMS wire Protocol



DBMS Server (DB2,ORACLE,SQL Server)



# QUESTIONS

[www.ibm.com/software/rational](http://www.ibm.com/software/rational)



# 雄踞的 **CCM** 王者，沉稳的领头羊

## - 新 CC/CQ 如何提升企业级配置和变更管理

王方

ClearQuest 开发工程师

[fwangf@cn.ibm.com](mailto:fwangf@cn.ibm.com)





# 议程

- **ClearQuest 简介**
- 基于拉模式报表的 Report Launcher
- 新的 ClearQuest Package
- 新的全文检索配置管理工具



# IBM Rational ClearQuest

## 全面的软件变更管理工具

一款业界领先的解决方案，提供灵活的缺陷和变更追踪，流程自动化，报表和追溯，目的是为了更好的掌控软件和系统开发生命周期。

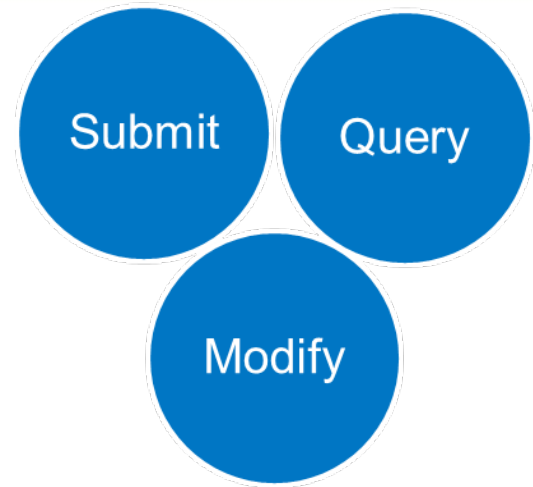
### 主要功能包括：

- ✓ 灵活，可定制的数据和用户界面
- ✓ 灵活，可定制和自动化的工作流程
- ✓ 提供开箱即用的应用生命周期管理模板，为客户自定义应用生命周期管理最佳实践提供了坚实的基础
- ✓ 实时报表展示项目进展情况，帮助管理层决策
- ✓ 数据安全访问控制，电子签名，审计跟踪等有效地确保了组织内部的**合规管理**
- ✓ 适应于从小工作组到分布式企业团队的各种规模，
- ✓ 与需求，开发，构建，测试，部署工具集成，提供变更的响应速度



## ClearQuest OSLC Links 包简介 -- 通过数据连接建立可追踪性

- ClearQuest 支持 Open Services for Lifecycle Collaboration (OSLC) APIs
- CQ 是通过 OSLC Links 包实现的
- 自 ClearQuest v7.1.2.1 或更新版本中，该功能开箱即用



CM OSLC 2.0

ClearQuest OSLC Links 包	需求管理	测试管理	变更管理
提升了 CQ-RTC-RQM 产品间的可追踪性，实现了其他 Rational 产品（例如 DOORS）及第三方产品（例如 Bugzilla）可使用的 API。	Rational DOORS  Rational Requirements Composer	Rational Quality Manager	Rational ClearQuest Bugzilla Rational Change Rational Team Concert

请参考如下链接，应用 OSLC Links 包：

<https://www-304.ibm.com/support/docview.wss?uid=swg21433074>

# ClearQuest Web 客户端上可见的可追踪性

- ClearQuest 令您能够连接到保存在其他存储库中的资源
  - 需求
  - 相关的变更需求
  - 测试案例及计划
  - 支持悬停展示 ( Rich Hover )
  - 支持 Oauth 认证

Rational ClearQuest

Welcome admin | Links/SAMPL | Log out  
You have 0 new items

New ALMRequest v Site Administration v Preferences Help v

SAMPL00000413

ALMRequest: SAMPL00000413

Request Project Related Records History Comments Attachments Links

Modify Change State v Utilities v

Links:

Add: Related Artifact v

**Related Change Request**

- Task 135: Implement New Feature
- Task 136: Review Code with Team

**Implements Requirement**

- New Requirement

**Tested By Test Case**

- 2: Test New Feature

Change Management

Requirements Management

Quality Management

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Supports CM OSLC 2.0 Relationship Properties

[http://open-services.net/bin/view/Main/CmSpecificationV2?sortcol=table;up=#Resource\\_ChangeRequest](http://open-services.net/bin/view/Main/CmSpecificationV2?sortcol=table;up=#Resource_ChangeRequest)



# 议程

- ClearQuest 简介
- **基于拉模式报表的 Report Launcher**
- 新的 ClearQuest Package
- 新的全文检索配置管理工具





## 新的拉模式报表

- 拉模式允许报表引擎连接预先设置的数据源，通过执行查询获取报表数据
- 报表引擎通过 ClearQuest 报表驱动程序连接数据源，构建拉模式报表
  - 驱动程序部分实现了 JDBC API
  - 支持 BIRT 和 Crystal 两种格式的报表
  - 报表构建使用报表供应商工具，独立于 ClearQuest 客户端
  - 保留 ClearQuest 数据安全机制

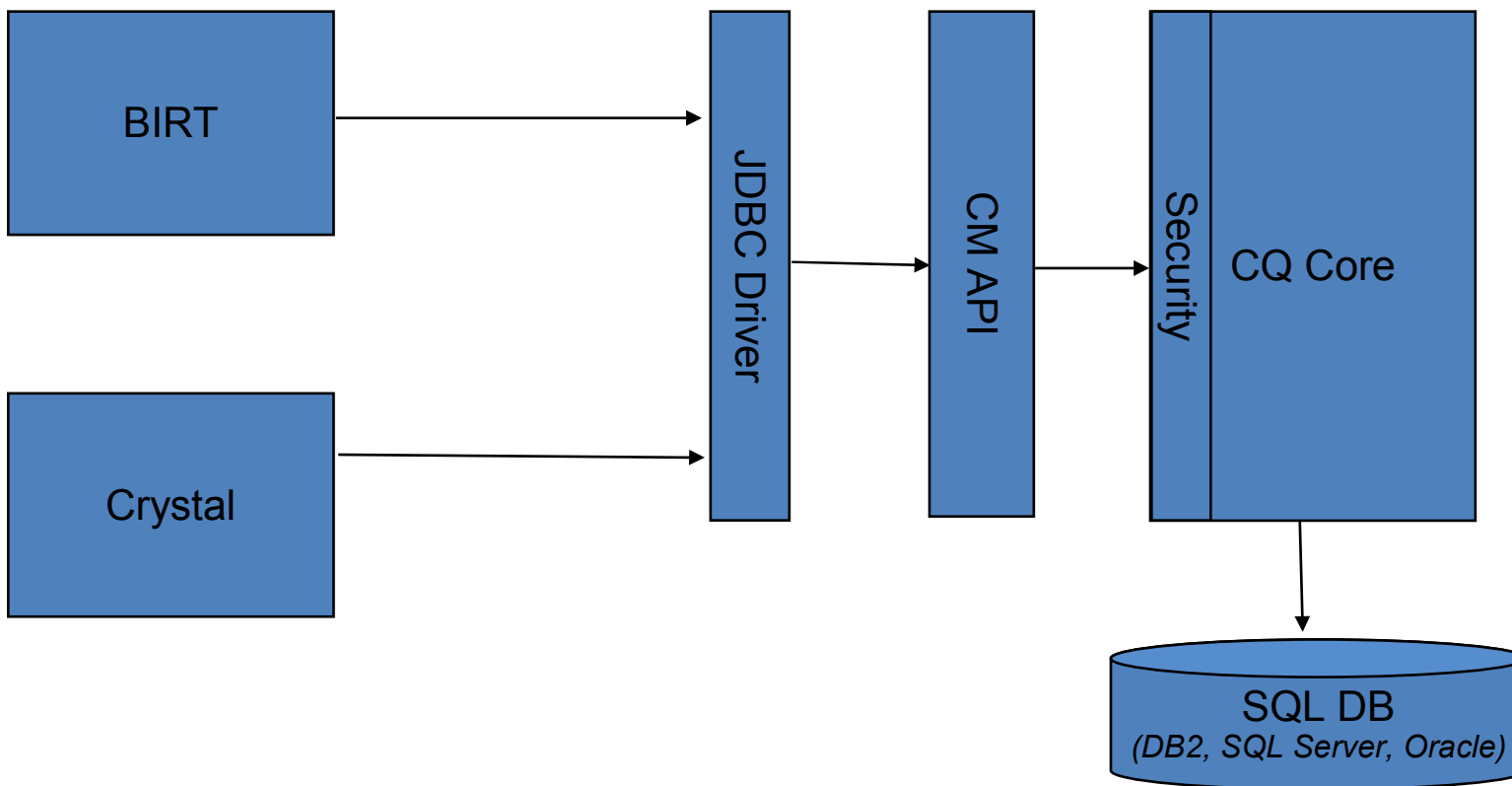


## 拉模式报表的优势

- 能够支持多个报表系统
- 能够跨记录类型构建报表
- 能够跨多个数据源构建报表
- 支持报表系统有用的功能，比如子报表
- 能够与企业报表环境集成



# 拉模式报表架构



## 7.1.X 报表小结

	编辑	使用	管理
<b>BIRT</b>	只支持拉模式报表，通过 ClearQuest Eclipse 客户端内置的 BIRT Report Designer 进行编辑	本地报表通过 ClearQuest Eclipse 客户端内置的 BIRT Report Designer 运行，通过 Report Server for ClearQuest Web 接口共享并运行报表	Report Server for ClearQuest
<b>Crystal Reports</b>	支持推模式和拉模式，推模式通过 ClearQuest Windows 客户端启动 Crystal Reports Designer 编辑，拉模式报表直接使用 Crystal Reports Designer 编辑	通过 ClearQuest Windows 客户端，Eclipse 客户端和 Web 运行推模式报表，通过 Report Server for ClearQuest Web 接口共享并运行拉模式报表	Report Server for ClearQuest



# ClearQuest Report Launcher

- 灵活的报表管理接口，运行 BIRT 和 Crystal 报表
- ClearQuest 安装时的可选服务组件（代替 ClearQuest Report Server）
- 利用 WebSphere 安全机制提供保护
- 需要单独安装 BIRT 运行时
  - ClearQuest 报表驱动部署在 BIRT 运行时中
- ClearQuest Web 上的 Report Launcher 接口
  - 支持向 Report Launcher 上传报表文件
- 使用 ClearQuest Report 导出工具将 ClearQuest Report Server 中的报表导出到文件系统





# 利用 WAS 安全机制保护报表

- 修改 Report Launcher URL 结构支持定制安全设置
  - 打开 WAS 安全
  - 配置 WAS 用户信息，比如 LDAP
  - 配置安全设置，基于 URL 路径限制用户权限

```
<security-constraint>
<web-resource-collection>
  <web-resource-name>Department1Security</web-resource-name>
  <url-pattern>/reports/Department1/BIRT/*</url-pattern>
  <url-pattern>/reports/Department1/doug/*</url-pattern>
  <url-pattern>/reports/Department1/CQReportsDemo/BIRT/*</url-pattern>
</web-resource-collection>
<auth-constraint>
  <role-name>Department1Managers</role-name>
</auth-constraint>
<user-data-constraint>
  <transport-guarantee>CONFIDENTIAL</transport-guarantee>
</user-data-constraint>
</security-constraint>
```



## 报表功能变化总结

7.1.X	最新版本
SAP 给 ClearQuest 客户提供专用的 Crystal Reports Java Reporting Component ( JRC )	ClearQuest 客户使用 SAP 标准版本 Crystal Reports Java Reporting Component ( JRC )
SAP 给 IBM Rational ClearQuest 客户提供专用的 Crystal Reports 报表设计组件 (RDC)	不再支持 RDC
Crystal Reports 迁移工具包含 JRC 运行时	需要从 SAP 单独下载 JRC 运行时，并配置 Crystal Reports 迁移工具
BIRT Report Designer 包含在 ClearQuest Eclipse 客户端	需要单独下载 BIRT Report Designer ， 并配置使用 ClearQuest Reporting Driver
Report Server for ClearQuest 作为可安装的服务组件	ClearQuest Report Launcher 替换 Report Server for ClearQuest ， 需要通过导出工具导出报表文件



# 议程

- ClearQuest 简介
- 基于拉模式报表的 Report Launcher
- **新的 ClearQuest Package**
- 新的全文检索配置管理工具



## CQ Package: EmailPlus 2.1

- EmailPlus 2.1
  - 富文本支持
  - 支持定制邮件布局
  - 支持丰富的规则
  - 支持多个邮件协议
  - 能够应用到任意 Schema

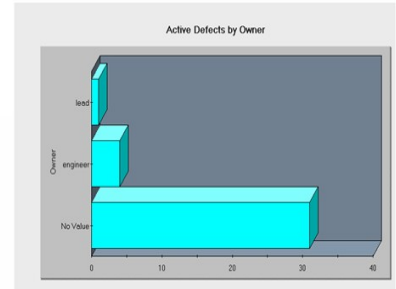


## 基于 HTML 的模板

## Example Generated Email

```
<H2>Current Workload Assignment</H2><BR>
#@embedchart:Public Queries/Distribution Charts/Active Defects by Owner:::@#<BR>
```

Current Workload Assignment



```

```



```
<H1>New Defect Submission # #?ID?#</H1>
```

### New Defect Submission # SAMPL00000054

Severity: **1-Critical** Submission Date : 26 August 2008  
 This Defect was submitted by: ClearQuest Administrator(admin)  
 EMail: cqadmin@home.com

**Headline:** A New defect has been born

**Description :** This new defect occurred while I was running the automated test suite. I noticed that there was an inconsistency in terminology used. In more places the word Logon is used, but on this screen it says Login

ClearQuest  
 --//---  
**Generating Email Rule Name:** New Defect Submitted  
**Actioner User Name:** ClearQuest Administrator  
[ClearQuest Web Link to New record](#)

## Example HTML Based Template

```

<H1>New Defect Submission # #?ID?#</H1>
<B>Severity: </B>#@EXPRESSION::if ( #?Severity?# =~ /^1/ ) { "<font color="red">"; }
  else { "<font color="green">"; } @#Severity #?Severity?# </FONT><br>
<B>Submission Date :</B> #@expression::formatdatetime(#?submit_date?#,1)@#<BR>
<B>This Defect was submitted by:</B> #?submitter.fullname?#(#?submitter?#)<br>
<B>EMail:</B> #?Submitter.email?#<BR>
<H2><font color="green">Headline:#?Headline?#</font></H2><BR>
<B><font color="green">Description :</B> #?Description?#</font><BR>
<H2>Current Workload Assignment</H2><BR>
#@embedchart::Public Queries/Distribution Charts/Active Defects by Owner:::@#<BR>
<B>ClearQuest</B><BR>--//---<BR>
<B>Generating Email Rule Name:</B> #@NameOfRule@# <BR>
<B>Actioner User Name:</B> #@ActionerUserName@#<BR>
<H3>#@URLofEntity::ClearQuest Web Link to New record @#</H3>
<B>Generated on:</B> #@expression::GetCurrentDate() ;@#</B><BR>
```





# CQ Package: Attachments 2.1

- Attachments 2.1
  - 将附件存储到远程 FTP 上
  - 控制附件文件大小
  - 可应用到任意的记录类型
- 优点
  - DB 变小，性能更高
  - Multi-Site 复制更快
- 缺点
  - 额外的 FTP 管理

The screenshot shows a dialog box titled "Submit AXFPAttachmentControl". It contains several input fields and a checkbox. The fields are: Name (AXFPAttachments), Account ID, Account Authentication, Control Options, Server Name, Storage Location, Max. Attachment File Size, Reference Location, and Security Context. A checkbox labeled "Disable transfer to external storage" is checked. At the bottom, there are fields for "Last Updated By" (admin) and "Created On" (4/23/2011). On the right side, there are buttons for "OK", "Cancel", and a "Values" dropdown menu.

The screenshot shows a dialog box titled "Open ALMRequest SAMPL00000005". It has a tabbed interface with "Request", "Project", "Related Records", "History", "Comments", "Attachments", "Keywords", and "Subscriber List". The "Attachments" tab is selected. It features a large empty area for attachments, with buttons for "Add...", "Delete", "Save As...", and "Open". Below this area, there is a text label "Click on this URL to view attachments stored on external server:" followed by a text input field. At the bottom, there is a section for "External Storage Error Text" with another text input field. On the right side, there are buttons for "OK", "Cancel", and a "Values" dropdown menu.

## CQ Package: ALMWork 1.3

- 7.1.2 弹出表单功能
  - 自动化流程需要用户交互
  - [http://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m2/index.jsp?topic=/com.ibm.rational.clearquest.apiref.doc/topics/r\\_examples\\_openform.htm](http://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m2/index.jsp?topic=/com.ibm.rational.clearquest.apiref.doc/topics/r_examples_openform.htm)
  - [http://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m2/index.jsp?topic=/com.ibm.rational.clearquest.apiref.doc/topics/r\\_examples\\_openurl.htm](http://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m2/index.jsp?topic=/com.ibm.rational.clearquest.apiref.doc/topics/r_examples_openurl.htm)
  - [http://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m2/index.jsp?topic=/com.ibm.rational.clearquest.apiref.doc/topics/r\\_examples\\_customerrmsg.htm](http://publib.boulder.ibm.com/infocenter/cqhelp/v7r1m2/index.jsp?topic=/com.ibm.rational.clearquest.apiref.doc/topics/r_examples_customerrmsg.htm)
- ALMWork 1.3
  - 支持自动弹出表单，提供可用性
  - 预置弹出表单的部分字段
  - 在一个流程中支持多次弹出表单
  - 需要 7.1.2 以上的产品



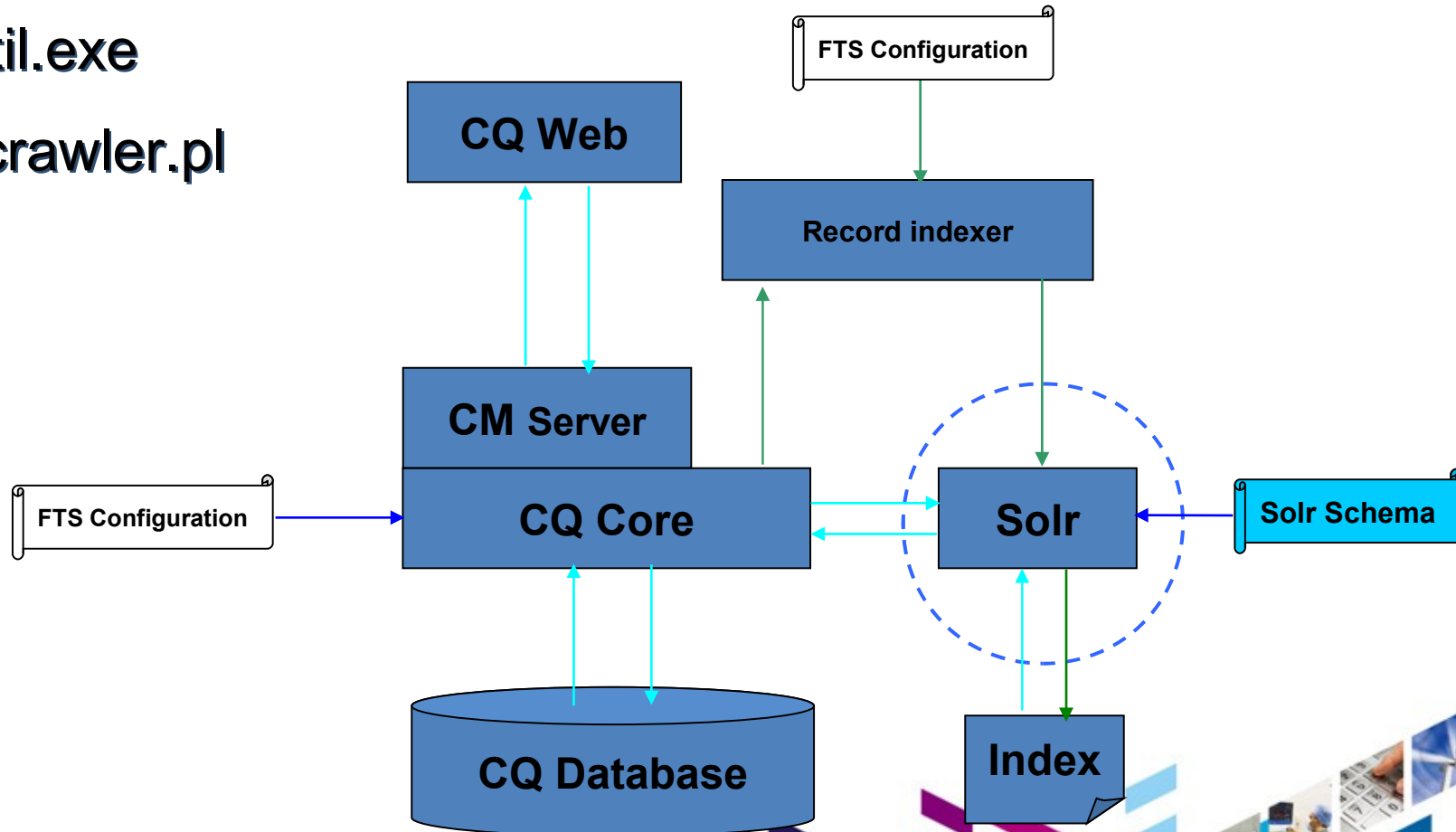
# 议程

- ClearQuest 简介
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## 7.1.X 全文检索技术架构

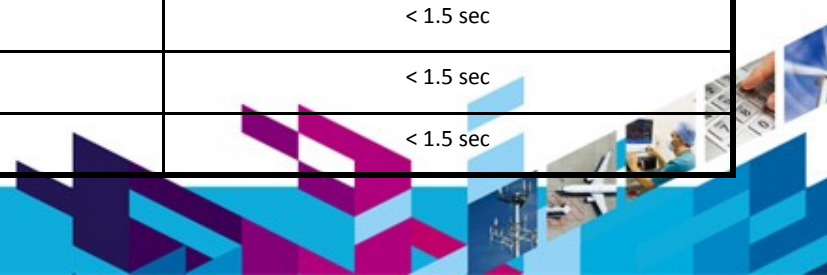
- cqtssetup.pl
- installutil.exe
- cqtsdbcrawler.pl
- 检索



## 全文检索性能数据

Company	CQ DB Size	Records Indexed	Index Size	Time to Index	OS / HW Spec
IBM	14.3 GB	743,536	2.8 GB	12 hours	Windows Server 2003 R2 Intel Xeon CPU 3.20GHz (2 CPUs) with 4 GB RAM SCSI HD @ 7200
Customer A	19.2 GB	2,683,341	3.86 GB	14 hours	Windows
IBM	53.2 GB	1,802,401	2.9 GB	37 hours	Linux Intel Xeon CPU 3.00GHz (4 CPUs) with 12 GB RAM

Search executed	Query on CQWeb	CQ Full-Text Search (7.1.X)
DS1 – Found in 7.1	1.62 sec	< 1.5 sec
DS4 – Found in 7.1	3.86 sec	< 1.5 sec
Blocking defects	13.36 sec	< 1.5 sec
My Defects	1.75 sec	< 1.5 sec
Headline Contains (“blocking”)	1.95 sec	< 1.5 sec
Headline Contains (“rsdc”)	1.92 sec	< 1.5 sec
Keywords (“committed”)	1.78 sec	< 1.5 sec



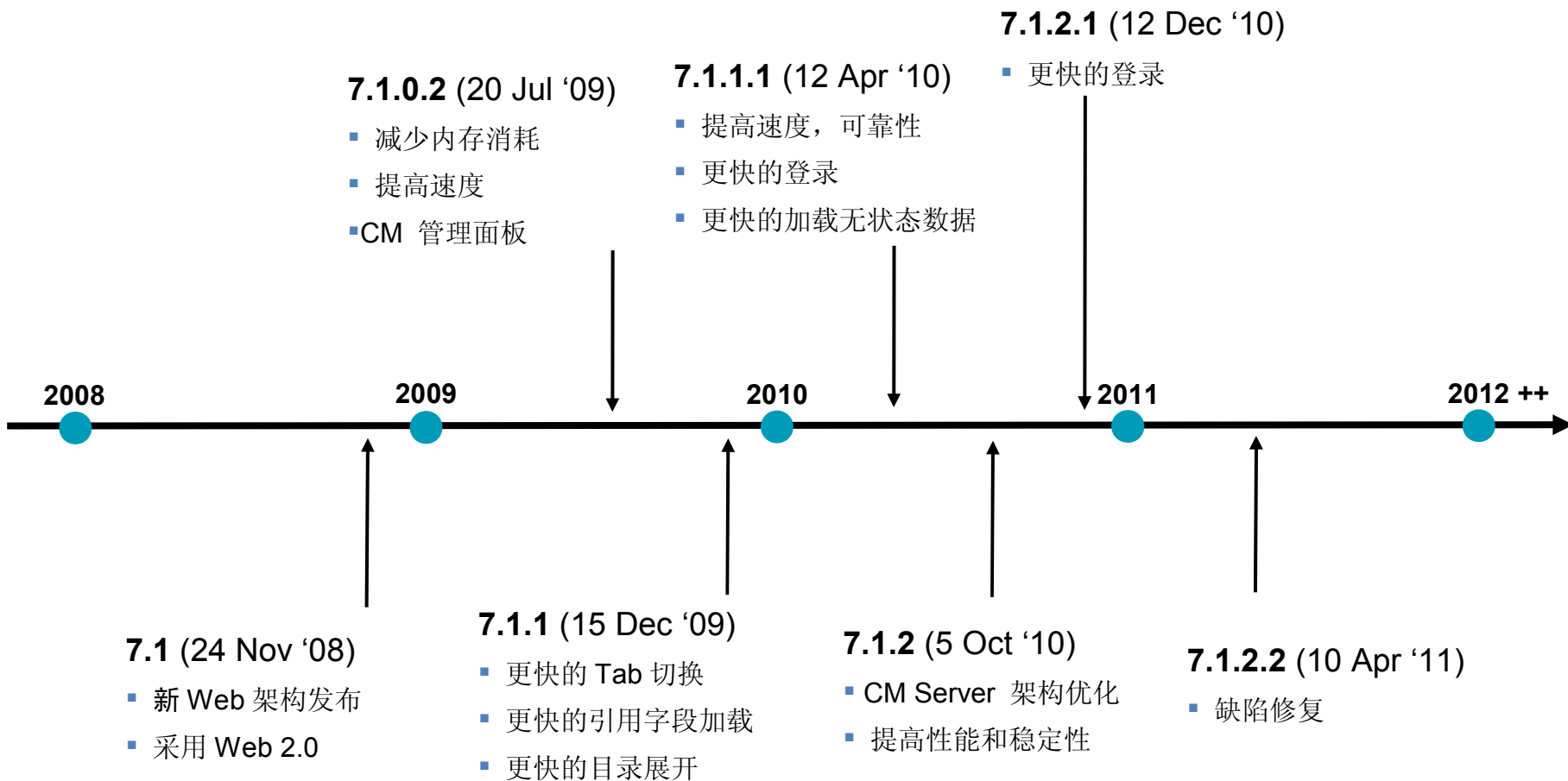


# 全文检索配置管理工具

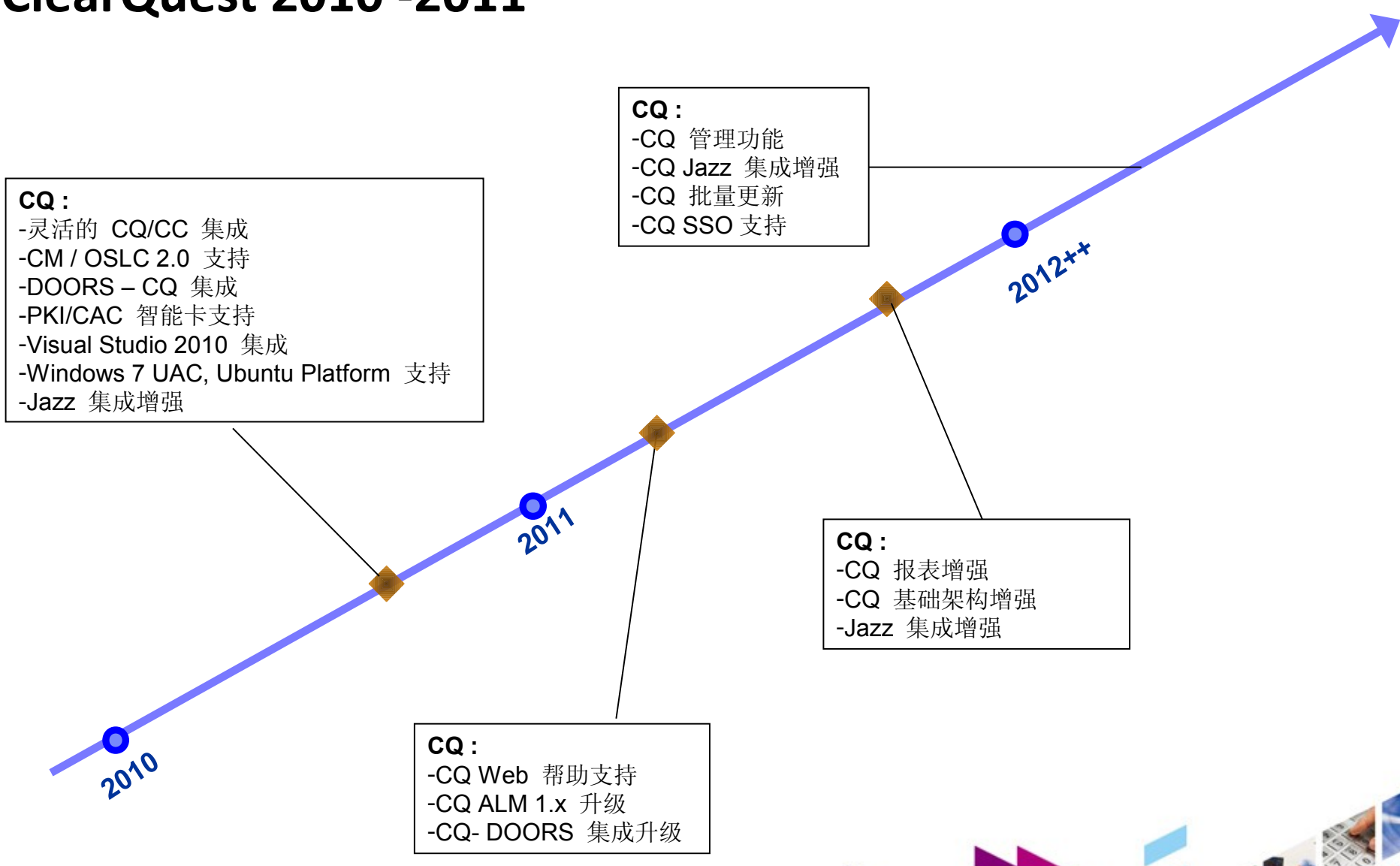
- 全文检索配置工具
  - 提高全文检索安装，部署，配置和维护的能力
  - 支持多个 CQ 数据库
  - 轻松添加，删除记录类型
  - 轻松升级产品
  - 内置问题诊断和错误收集功能



## ClearQuest Web 性能提升



## ClearQuest 2010 -2011



**CQ :**

- 灵活的 CQ/CC 集成
- CM / OSLC 2.0 支持
- DOORS – CQ 集成
- PKI/CAC 智能卡支持
- Visual Studio 2010 集成
- Windows 7 UAC, Ubuntu Platform 支持
- Jazz 集成增强

**CQ :**

- CQ 管理功能
- CQ Jazz 集成增强
- CQ 批量更新
- CQ SSO 支持

**CQ :**

- CQ 报表增强
- CQ 基础架构增强
- Jazz 集成增强

**CQ :**

- CQ Web 帮助支持
- CQ ALM 1.x 升级
- CQ- DOORS 集成升级



# ClearCase & ClearQuest 方向

➤ 解决企业级配置和变更管理需求

➤ 我们将继续增强 **CC** 和 **CQ**，集中在解决企业级配置和变更管理，为客户有竞争力的价值

➤ 解决协作生命周期管理需求

➤ 我们计划提供与 **Jazz** 平台一流的集成，使用 **connectors** 和 **bridges** 解决系统和应用生命周期管理需求





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